

AMENDMENTS TO THE CLAIM

1. **(Currently amended)** A system for testing a DUT having a plurality of probe pads, comprising:
 - a. a forcing probe for contacting and applying a first an electrical signal to a first portion of a first one of the plurality of probe pads;
 - b. a sensing probe for contacting a second portion of said first one of the plurality of probe pads spaced from said first portion and sensing a second electrical signal at said first one of said plurality of probe pads said electrical signal after said electrical signal has passed from said first portion to said second portion via said first one of said plurality of probe pads; and
 - c. a variable power supply in electrical communication with said forcing probe and said sensing probe, said variable power supply capable of adjusting said first electrical signal based upon said second electrical signal a feedback system operatively configured for adjusting the magnitude of said electrical signal applied by said forcing probe as a function of said electrical signal sensed at said sensing probe so as to achieve a desired value of said electrical signal at said second portion.
2. **(Currently amended)** A system according to claim 1, further comprising a plurality of forcing probes and a plurality of variable power supplies feedback systems, each of said forcing probes being in electrical communication with a corresponding one of said plurality of power supplies feedback systems.
3. **(Currently Amended)** A system according to claim 1, a voltmeter electrically connected between said sensing probe and said variable power supply, said voltmeter wherein said feedback system includes a voltmeter for measuring said second electrical signal.
4. **(Original)** A system according to claim 1, further comprising a probe card, said probe card supporting said forcing probe and said sensing probe.

5. **(Currently amended)** A system according to claim 1, further comprising first and second sensing electrodes and a sensing instrument, said first sensing electrode in electrical communication with said variable power supply feedback system, said second sensing electrode in electrical communication with said sensing instrument.
6. **(Original)** A system according to claim 5, wherein said sensing instrument is a current meter.
7. **(Currently amended)** A system according to claim 1, further comprising a plurality of forcing probes, a plurality of variable power supplies feedback systems and a switching matrix, said plurality of forcing probes being selectively connectable to said plurality of variable power supplies feedback systems via said switching matrix.
8. **(Currently amended)** A system according to claim 1, further comprising wherein said feedback system includes a feedback controller electrically connected between said sensing probe and said variable power supply operatively configured for automatically achieving said desired value of said electrical signal.
9. **(Currently amended)** A method of testing a DUT having a plurality of probe pads, comprising the steps of:
 - a. providing a first electrical signal to a first portion of one of the plurality of probe pads;
 - b. sensing a second said first electrical signal at a second portion of said one of the plurality of probe pads spaced from said first portion after said first electrical signal has passed through said one of the plurality of probe pads; and
 - c. adjusting the magnitude of said first electrical signal applied to said first portion based upon said second electrical signal as a function of said first electrical signal as sensed at said second portion so as to achieve a desired value of said first electrical signal as sensed at said second portion.

10. **(Currently amended)** A method according to claim 9, further comprising the step of measuring a third second electrical signal at a second one of the plurality of probe pads when said first electrical signal sensed at said second portion is equal to said desired value.

11. **(Currently amended)** A method according to claim 9, wherein comprising the steps of:

- a plurality of first electrical signals are provided providing a plurality of first electrical signals to a number of the plurality of probe pads;
- a plurality of second electrical signals are sensed sensing said plurality of first electrical signals at said number of the plurality of the probe pads; and
- each of the first electrical signals is adjusted adjusting said plurality of first electrical signals provided based upon corresponding ones of said plurality of second first electrical signals sensed.

12. **(Original)** A method according to claim 11, wherein said plurality of first electrical signals is provided via a plurality of forcing probes and a plurality of power supplies each in electrical communication with a corresponding one of said plurality of forcing probes.

13. **(Original)** A method according to claim 12, further comprising the step of selectively coupling said forcing probes to said power supplies via a switching matrix.

14. **(Currently amended)** A method according to claim 12, wherein each of said power supplies includes a feedback controller system for adjusting a corresponding one of said plurality of first electrical signals based upon a corresponding one of said plurality of second electrical signals sensed at said second portion of said one of the plurality of probe pads to a corresponding desired value.

15. **(Original)** A method according to claim 9, wherein said first electrical signal is provided via a forcing probe and a power supply in electrical communication with said forcing probe.

16. **(Currently amended)** A method according to claim 15, further comprising a sensing probe and wherein said power supply includes a feedback controller system for adjusting the

magnitude said first electrical signal applied by said forcing probe to said first portion of said one of the plurality of probe pads based upon said second first electrical signal sensed by said sensing probe at said second portion of said one of the plurality of probe pads.

17. **(Currently amended)** A method according to claim 9, further comprising the step of providing a feedback signal in proportion to said second first electrical signal sensed at said second portion of said one of the plurality of probe pads for adjusting said first electrical signal applied at said first portion of said one of the plurality of probe pads.

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